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(54) Title: ORGANIC DYE-IN-POLYMER (DIP) MEDIUM FOR WRITE-ONCE-READ-MANY (WORM) OPTICAL DISCS WITH FLUORESCENT READING

### (57) Abstract

High sensitive organic dye-in-polymer (DIP) medium for write-once-read-many (WORM) optical discs with fluorescent reading. The medium consists of a fluorescent color means, capable of absorbing writing radiation produced by a laser, a compound capable of generating free radicals upon influence of heat produced by the writing radiation and a polymer capable of producing a translucent film enabling high quantum yield of the fluorescence induced in the color means. The color means can be selected from xanthene dyes of the eosine and rhodamine groups, acridine, oxazine, azine, peylene, violanthrone, cyanine, phthalocyanine, indigoide colors and porphyrines. The free radicals generating compound can be chosen from the group of compounds comprising azo and diazoi compounds or peroxyde compounds. The film producing polymer can be selected from the group of compounds comprising cellulose ethers, vinyl resins or acrylic resins.

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